SulTRAC

January 22, 2010

Mr. Sam Chummar
Work Assignment Manager
U.S. Environmental Protection Agency (EPA)
77 West Jackson Boulevard (SR-6J)
Chicago, IL 60604

Subject: Oversight Summary for January 11 through January 15, 2010 (Week 1)
Plainwell Mill Site, Operable Unit No. 7 of
Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site
Plainwell, Allegan County, Michigan
Remedial Action Contract (RAC) 2 No. EP-S5-06-02
Work Assignment No. 041-RSBD-059B

Dear Mr. Chummar:

SulTRAC has prepared the enclosed summary to document Phase II remedial investigation activities at the above-referenced site from January 11 through 15, 2010 (Week 1). Weyerhaeuser Company is the potentially responsible party for the site and Conestoga-Rovers & Associates, Inc. is its environmental contractor. Appendix A of this summary contains a photographic log of the investigation activities. Appendix B contains SulTRAC's field oversight notes. Appendix C contains SulTRAC's field sample log.

If you have any questions about the enclosed summary, please call me at (312) 201-7491.

Sincerely,

Jeffrey J. Lifka
Project Manager

Enclosure

cc: Norvelle Merrill-Crawford, EPA Contracting Officer (letter only)
Ron Riesing, SulTRAC Program Manager
File

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ENCLOSURE

OVERSIGHT SUMMARY
FOR JANUARY 11 THROUGH JANUARY 15, 2010 (WEEK 1)
PLAINWELL MILL SITE
PLAINWELL, ALLEGAN COUNTY, MICHIGAN

(13 Pages)

OVERSIGHT SUMMARY
FOR JANUARY 11 THROUGH JANUARY 15, 2010 (WEEK 1)
PLAINWELL MILL SITE
PLAINWELL, ALLEGAN COUNTY, MICHIGAN

SulTRAC Oversight Personnel: Kristi Root, Tracey Koach, and Robert Kondreck
Reporting Period: January 11 through 15, 2010 (Week 1)

INTRODUCTION

As requested by the U.S. Environmental Protection Agency (EPA) under contract number EP-S5-06-02 and work assignment number 041-RSBD-059B, SulTRAC conducted oversight and split sampling for Phase II of the Remedial Investigation (RI) for the Plainwell Mill Site, Operable Unit No.7 of the Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site in Plainwell, Michigan. Weyerhaeuser Company (Weyerhaeuser) is the potentially responsible party (PRP) for the site. Conestoga-Rovers & Associates, Inc. (CRA) is the environmental consultant to Weyerhaeuser.

As requested by EPA, SulTRAC began oversight activities at the site on January 11, 2010. This report summarizes SulTRAC's oversight activities and documentation of the PRP's Phase II activities during Week 1 of the RI/FS from January 11 through 15, 2010; issues and developments that arose during the oversight activities; and future activities. Appendix A contains a photographic log of Week 1's site activities, including Photographs 1 through 16. Appendix B contains a copy of SulTRAC's field oversight notes. Appendix C contains SULTRAC's field sample log.

PHASE II RI ACTIVITIES

During the first week of RI oversight from January 11 through 15, 2010, SulTRAC observed CRA advancing soil borings, conducting vertical aquifer sampling (VAS), installing monitoring wells, collecting surface soil samples, and surging/purging groundwater from existing and newly installed monitoring wells. CRA maintained two drilling crews on site: one drilling crew conducted VAS and the second drilling crew advanced soil borings. CRA personnel not assigned to a drilling crew conducted surface soil sampling, surged/purged groundwater from the existing and newly installed monitoring wells, and processed samples. Also, the drilling rigs were owned and operated by CRA.

During week 1, CRA advanced 19 soil borings (MW-14, MW-15, MW-16, MW-17, MW-18, MW-19, VA-1, SB-101, SB-106, SB-107, SB-108, SB-109, SB-111, SB-303, SB-304, SB-305, SB-306, SB-307, and SB-308); installed seven monitoring wells (MW-13, MW-14, MW-15, MW-16, MW-17, MW-18, and MW-19); installed two temporary vertical aquifer sampling wells (VAS-1 and VAS-2); and collected eight surface soil samples (SS-100, SS-101, SS-102, SS-103, SS-104, SS-105, SS-106, and SS-107). Samples collected by CRA and SulTRAC during week 1 include 34 subsurface soil samples (CRA) with nine split samples (SulTRAC, including one duplicate and one matrix spike/matrix spike duplicate [MS/MSD]); eight surface soil samples (CRA) with two split samples (SulTRAC); and 13 VAS samples (CRA) with three split samples (SulTRAC, including one duplicate).

Monday, January 11, 2010

SulTRAC representatives Robert Kondreck, Tracey Koach, and Kristi Root arrived on site at 8:00 a.m. and met with Emily Stahl of CRA. Weather at the time of arrival was overcast, 20 degrees Fahrenheit with light snow. CRA staff was already on site. A health and safety tailgate meeting was held by Emily Stahl at 8:30 a.m. The focus of the meeting was the location of and route to the nearest hospital, cold weather conditions being of greatest concern, and need to avoid slips, trips, and falls. The drill crew did not arrive until 9:15 a.m. — delayed due to whiteout conditions traveling from Detroit. Snowfall increased as Emily Stahl, CRA, directed a tour of the site for SulTRAC and additional CRA staff at 9:45 a.m. At 11:30 a.m., drill crew No. 1 (DC1), led by field technician David Rivers, set up on VA-1, and Drill crew No. 2 (DC2), led by field technician Corrie Bondy, set up on SB-109 (see Photograph No. 1 in Appendix A).

Starting at 1:00 p.m., DC1 performed a geology soil log from 0 to 40 feet (ft) below ground surface (bgs) at VA-1. Clay with paper residuals was encountered from 7 to 10 ft bgs, with the water table occurring around 10 ft bgs (see Photographs No. 2 and 3 in Appendix A). During the soil logging, 2-ft-interval samples were collected in plastic baggies for photoionization detector (PID) measurements (MiniRAE). The direct-push technique using a Geoprobe 6620 DT was used to obtain 5-ft-interval sleeves for the soil logging.

At 3:10 p.m., a second boring hole was started by DC1 for the VAS. The screen used for the VAS was 4 feet long; therefore, the first sampling interval was 10 to 14 ft bgs. The Geoprobe groundwater sampler was advanced to 14 ft bgs, and the screen was held in place by extension rods as the outer casing was raised to expose the screen from 10 to 14 ft bgs. The VAS samples were obtained using a peristaltic pump with the bottom of the tubing in the middle of the sampling interval. Each sampling interval was first purged until stable. A flow-through cell with a QED MP20 reader was used to determine stabilization (see Photograph No. 4 in Appendix A as an example of the purge setup for VA-1). The purging process started at 3:25 p.m. for VA-1 interval 10 to 14 ft bgs, and stabilized at 4:00 p.m., at which time CRA started sampling (sample ID no. VAS-56394-DR-011110-1001). CRA collected samples for volatile organic compounds (VOC), semi-volatile organic compounds (SVOC), and filtered and unfiltered metals analyses. Sampling of the interval 10 to 14 ft bgs was completed at 4:45 p.m.

Starting at 1:00 p.m., DC2 performed a geology soil log from 0 to 20 ft bgs at SB-109. Clay with paper residuals was encountered from 7.5 to 10 ft bgs, with the water table occurring around 10 ft bgs. During the soil logging, 2-ft-interval samples were collected in plastic Ziploc bags for PID measurements (MiniRAE) to determine if impacted soil was present so that the sample intervals could be determined. Sampling intervals were determined to be 0 to 2 ft bgs and 8 to 10 ft bgs. The direct-push technique using a 6610 DT Geoprobe was used to obtain 5-ft-interval sleeves for the soil logging and soil sampling. At 2:15 p.m., CRA collected sample SO-56394-CB-011110-001 from the 0 to 2 ft bgs interval. At this time, a second soil boring was advanced for sampling purposes. Soil samples were collected from the second boring hole for VOC analysis and preserved with methanol in the field as soon as the soil core was cut open. Soils from the soil log cores were mixed with the second soil boring core to provide volume for sampling. Additional soil borings were advanced within a foot of the original boring hole if additional soil volume was needed for sampling. At 2:25 p.m., CRA collected sample SO-56394-CB-011110-002 from the 8 to 10 ft bgs interval following the same procedures performed for the 0 to 2 ft bgs interval. Both samples were collected for analysis for VOCs, SVOCs, polychlorinated biphenyls (PCB), metals,

synthetic precipitation leaching procedure (SPLP) metals, and general chemistry. After sampling was completed, CRA filled the boring holes with bentonite chips.

At 2:50 p.m., DC2 started a soil log to 20 feet for MW-15. The soil log and PID sampling followed the same procedures as had been performed for SB-109. The water table was found at 7 feet bgs. Intervals 0 to 2 ft bgs and 4 to 6 ft bgs were selected for sampling. At 3:35 p.m., CRA collected sample SO-56394-CB-011110-003 from the 0 to 2 ft bgs interval. At this time, SulTRAC collected its split sample (ID no. S-SO-56394-011110-003). At 3:50 p.m., CRA collected sample SO-56394-CB-011110-004 from the 4 to 6 ft bgs interval. MW-15 was set from 5 to 12 ft bgs, and 30 gallons of drilling water was used in the process.

SulTRAC departed the site at 5:00 p.m. CRA was preparing to leave the site.

Tuesday, January 12, 2010

SulTRAC (Kristi Root and Robert Kondreck) arrived on site at 8:00 a.m. CRA was already on site. The tailgate safety meeting started at 8:00 a.m., and the safety concerns were cold weather, slips, trips, and falls. Weather at the time of arrival was partly sunny and 10 degrees Fahrenheit.

DC1 continued with VAS sampling at VA-1. The screen was set from 14 to 18 ft bgs at 9:25 a.m., and the purging process began. Interval 14 to 18 ft bgs was stabilized at 9:45 a.m., and CRA began collecting sample VAS-56394-DR-011210-1002. The sampling procedures used for all VA-1 samples were the same as those described for interval 10 to 14 ft bgs on Monday January 11, 2010. Sampling was completed at 10:10 a.m., and the sampling screen was advanced to interval 18 to 22 ft bgs. The purging process began at 10:25 a.m. and stabilized at 10:55 a.m. CRA began collection of VAS-56394-DR-011210-1003 and field duplicate VAS-56394-DR-011210-1004. DC1 repeated this process for the remainder of the day. Interval 26 to 30 ft bgs was the last interval to be sampled for the day. The sampling screen was set from 30 to 34 ft bgs to begin sampling the following morning. Table 1 lists the purge and sampling times along with sample identification (ID) numbers for samples collected during the day. At intervals 26 to 30 ft bgs and 30 to 34 ft bgs, CRA had trouble setting the screen. Fine sands located in these intervals would cause the outer casing and screen to lock up. The screen was being pulled up along with the outer casing. It took several tries to set the screens to the proper interval.

Table 1
Sample Data for VA-1 – January 12, 2010

Interval, ft bgs	Purge start time	Sample start time	Sample ID	Sampled by
14 - 18	09:25 a.m.	09:45	VAS-56394-DR-011210-1002	CRA
18 - 22	10:25 a.m.	10:55	VAS-56394-DR-011210-1003	CRA
18 - 22	10:25 a.m.	10:55	VAS-56394-DR-011210-1004	CRA
22 - 26	1:15 p.m.	13:45	VAS-56394-DR-011210-1005	CRA
26 - 30	3:00 p.m.	15:30	VAS-56394-DR-011210-1006	CRA

Notes:

bgs Below ground surface
CRA Conestoga-Rovers & Associates, Inc.
ft Feet
ID Identification

DC2 began advancing soil core at 9:30 a.m. for MW-14. The location of MW-14 was moved by 4 to 5 feet due to utilities. Unless otherwise stated, soil logging procedures and sampling procedures were the same for all soil boring as for the procedures described for SB-109 on Monday, January 11, 2010. The soil log was started at 9:40 a.m. and the intervals for sampling were determined to be 0 to 2 ft bgs and 8 to 10 ft bgs. CRA collected sample SO-56394-CB-011210-006, a MS/MSD sample, at 10:10 a.m. from interval 0 to 2 ft bgs, and samples SO-56394-CB-011210-008 and SO-56394-CB-011210-009 at 10:30 a.m. and 10:35 a.m., respectively, from interval 8 to 10 ft bgs. Sample SO-56394-CB-011210-009 is a CRA field duplicate. Installation for MW-14 began at 10:45 a.m. The well screen for MW-14 was set from 7 to 14 ft bgs, and 35 gallons of drill water was used during installation. All monitoring wells were 2-inch diameter and were constructed of polyvinyl chloride (PVC) pipe.

CRA started collecting surface samples in Area 1. Surface soil was collected from 0 to 2 ft bgs in three holes adjacent to one another and composited in a stainless steel bowl lined with aluminum foil. CRA and SulTRAC collected samples for analyses for VOCs, soil moisture, SVOCs, PCBs, metals, and cyanide (cyanide by SulTRAC only). See Table 2 for sample information.

Table 2
Surface Soil Sample Data – January 12, 2010

Location	Sample time	Sample ID	Sampled by
SS-107	10:50 a.m.	SS-56394-EV-011210-015	CRA
SS-105	11:20 a.m.	SS-56394-EV-011210-011	CRA
SS-103	1:20 p.m.	SS-56394-EV-011210-012	CRA
SS-103	1:20 p.m.	S-SS-56394-EV-011210-012	SulTRAC
SS-102	1:45 p.m.	SS-56394-EV-011210-013	CRA
SS-100	2:15 p.m.	SS-56394-EV-011210-010	CRA

Notes:

ID Identification
CRA Conestoga-Rovers & Associates, Inc.
SS Surface soil

After completing the installation of MW-14, DC2 began soil log for MW-16 at 2:50 p.m. CRA collected sample SO-56394-CB-011210-017 from interval 0 to 2 ft bgs at 3:40 p.m. Sample SO-56394-CB-011210-016 was collected by CRA at 3:50 p.m. from interval 3 to 5 ft bgs. CRA collected sample SO-56394-CB-011210-15 from interval 8 to 10 ft bgs at 4:00 p.m. In addition, SulTRAC collected a split sample, S-SO-56394-CB-011210-15, from interval 8 to 10 ft bgs at 4:00 p.m. MW-16 was not installed at this time. DC2 began advancing MW-17 at 4:30 p.m. CRA collected samples SO-56394-CB-011210-018 and SO-56394-CB-011210-019 at 4:50 p.m. and 5:00 p.m. from intervals 0 to 2 ft bgs and 8 to 10 ft bgs, respectively. Sample SO-56394-CB-011210-018 would be discarded as investigation-derived waste, and interval 0 to 2 ft bgs would be re-sampled on Wednesday, January 13, 2010, because CRA forgot to collect the pre-designated duplicate sample at this interval.

SulTRAC departed site at 5:15 p.m. CRA was preparing to leave the site. SulTRAC delivered samples to Trimatrix lab by 6:10 p.m.

Wednesday, January 13, 2010

SulTRAC (Kristi Root and Robert Kondreck), arrived on site at 8:00 a.m. Weather on site at time of arrival was partly sunny and 20 degrees Fahrenheit. DC1 started purging VA-1 interval 30 to 34 ft bgs at 8:10 a.m. DC1 continued VAS sampling at VA-1 until 12:05 p.m., when DC1 completed the last interval of sampling, 38 to 42 ft bgs. Table 3 lists the VAS sampling data for January 13, 2010.

Table 3
VAS Sampling at VA-1 – January 13, 2010

Interval, ft bgs	Purge start time	Sample start time	Sample ID	Sampled by	Comments
30 - 34	08:10 a.m.	08:40	VAS-56394-DR-011210-1007	CRA	
34 - 38	09:30 a.m.	10:10	VAS-56394-DR-011210-1008	CRA	
34 - 38	09:30 a.m.	10:10	S-VAS-56394-DR-011210-1008	SulTRAC	
34 - 38	09:30 a.m.	10:10	SD-VAS-56394-DR-011210-1008	SulTRAC	duplicate
38 - 42	11:15 a.m.	11:45	VAS-56394-DR-011210-1009	CRA	

Notes:

bgs Below ground surface
CRA Conestoga-Rovers & Associates, Inc.
ft Feet
ID Identification

DC2 began installing MW-16 at 8:30 a.m. The well screen was set from 8 to 15 ft bgs, and 30 gallons of water was used in the installation process. At 11:00 a.m., CRA re-sampled interval 0 to 2 ft bgs at MW-17 (sample SO-56394-CB-011310-018) and also collected a field duplicate sample (SO-56394-CB-011310-020) at 11:10 a.m. DC2 began installing MW-17 with the well screen from 8.5 to 15.5 ft bgs at 11:15 a.m.

CRA began surface sampling at 11:35 a.m. at SS-101. SulTRAC collected a split sample at SS-101. CRA followed the same surface sampling procedures as on Tuesday, January 12, 2010. Table 4 lists the surface sampling information for January 13, 2010 (see Photographs No. 6 through 8 in Appendix A).

Table 4
Surface Soil Sample Data – January 12, 2010

Location	Sample time	Sample ID	Sampled by	Comments
SS-101	11:35	SS-56394-EV-011210-021	CRA	
SS-101	11:35	S-SS-56394-EV-011210-021	SulTRAC	
SS-104	13:25	SS-56394-EV-011310-022	CRA	
SS-106	13:45	SS-56394-EV-011310-023	CRA	
SS-106	13:50	SS-56394-EV-011310-024	CRA	duplicate

Notes:

ID Identification
CRA Conestoga-Rovers & Associates, Inc.
SS Surface soil

DC1 started a new boring hole at VA-1 within a foot of the geology and water sampling boring holes to be used for its soil samples. CRA began soil sampling from interval 0 to 2 ft bgs (sample SO-56394-DR-011310-1010) at 1:15 p.m. CRA collected a second soil sample from interval 8 to 10 ft bgs (sample SO-56394-DR-011310-1011), and SulTRAC also collected a split soil sample (S-SO-56394-DR-011310-1011) at this location. Two boring holes were advanced to obtain enough soil volume for both SulTRAC and CRA samples. Soils from both boring holes were mixed together in a stainless steel bowl lined with aluminum before samples were collected. However, the VOC samples were collected immediately from the first soil core (see Photograph No. 5 in Appendix A for location of boring holes at VA-1).

DC1 moved to VAS location VA-2 and started taking the geology soil log at 2:30 p.m. The water table was found at 5 to 6 ft bgs (see Photograph No. 12 in Appendix A). Within soil interval 30 to 35 ft bgs, CRA hit a clay till layer with no water. CRA called refusal at 35 ft bgs because it did not have equipment on site that could go any further through the clay till layer. CRA determined that VAS sampling would go only to 32 ft bgs where the clay till layer started instead of to the pre-determined depth of 40 ft bgs. CRA set the sampling screen at 6 to 10 ft bgs at VA-2 and began purging at 4:00 p.m. VAS sample VAS-56394-DR-011310-1012 was sampled at 4:35 p.m. from sampling interval 6 to 10 ft bgs.

DC2 began advancement for the soil log at MW-18 at 2:10 p.m. CRA sampling began at 3:10 p.m. from interval 0 to 2 ft bgs (sample SO-56394-CB-011310-025) and from interval 8 to 10 ft bgs at 3:20 p.m. (sample SO-56394-CB-011310-026). SulTRAC collected a split sample from interval 8 to 10 ft bgs (sample S-SO-56394-CB-011310-026). CRA collected one more sample from MW-18 at interval 10 to 12 ft bgs at 3:30 p.m. (sample SO-56394-CB-011310-027). DC2 moved to MW-19 and began advancing for the soil log at 3:50 p.m. CRA collected two samples from MW-19 at intervals 0 to 2 ft bgs (SO-56394CB-011310-028) and 8 to 10 ft bgs (SO-56394-CB-011310-029) at 4:30 p.m. and 4:40 p.m., respectively. SulTRAC collected a split sample at interval 0 to 2 ft bgs (sample S-SO-56394-CB-011310-029).

All sampling for the day was completed by 4:50 p.m. SulTRAC departed the site at 5:00 p.m. CRA was preparing to leave the site.

Thursday, January 14, 2010

SulTRAC (Kristi Root and Robert Kondreck) arrived on site at 8:00 a.m. The weather upon arrival was overcast and 35 degrees Fahrenheit.

DC1 continued with VAS sampling at VA-2. See Table 5 for VAS sampling details for January 14, 2010. SulTRAC collected a split sample at interval 10 to 14 ft bgs (see Photograph No. 13 in Appendix A for VAS sampling setup at VA-2). At 3:35 p.m., CRA began setting MW-13, which is the same location as VA-1. The screen was set from 9 to 16 ft bgs, and 15 gallons of drill water was used.

Table 5
VAS Sampling at VA-2 – January 14, 2010

Interval, ft bgs	Purge start time	Sample start time	Sample ID	Sampled by	Comments
10 - 14	08:20 a.m.	08:45	VAS-56394-DR-011410-1013	CRA	
10 - 14	09:30 a.m.	10:10	S-VAS-56394-DR-011410-1014	SulTRAC	
14 - 18	10:05 a.m.	10:40	VAS-56394-DR-011410-1014	CRA	
14 - 18	10:05 a.m.	10:40	VAS-56394-DR-011410-1015	CRA	Duplicate
18 - 22	12:15 a.m.	12:50	VAS-56394-DR-011410-1016	CRA	
22 - 26	1:35 a.m.	14:00	VAS-56394-DR-011410-1017	CRA	

Notes:

bgs Below ground surface
CRA Conestoga-Rovers & Associates, Inc.
ft Feet
ID Identification

DC2 collected soil samples from SB-303, SB-304, SB-303, SB-305, SB-306, and SB-307. Table 6 lists the soil boring sample data for January 14, 2010 (see Photograph No. 11 in Appendix A for example of sample activities). DC2 began installation of MW-19 at 2:30 p.m. The well screen was set from 8 to 15 ft bgs, and 35 gallons of drill water was used in the installation (see Photograph No. 9 of installed well and Photograph No. 10 of well installation in Appendix A).

Table 6
Soil Sampling Data – January 14, 2010

Sample location	Interval, ft	Sample time	Sample ID	Sampler	Comments
SB-303	0-2	9:00	SO-56395-CB-011410-032	CRA	MS/MSD
SB-303	3.5-5.5	9:05	SO-56395-CB-011410-033	CRA	
SB-303	3.5-5.5	9:05	S-SO-56395-CB-011410-033	SulTRAC	
SB-303	3.5-5.5	9:07	SD-SO-56395-CB-011410-033	SulTRAC	DUPLICATE
SB-303	5.5-7.5	9:10	SO-56395-CB-011410-034	CRA	
SB-303	8-10	9:15	SO-56395-CB-011410-035	CRA	
SB-303	8-10	9:20	SO-56395-CB-011410-036	CRA	DUPLICATE
SB-304	0-2	10:10	SO-56395-CB-011410-037	CRA	
SB-304	4-6	10:15	SO-56395-CB-011410-038	CRA	
SB-304	6-8	10:20	SO-56395-CB-011410-039	CRA	
SB-304	8-10	10:25	SO-56395-CB-011410-040	CRA	
SB-304	8-10	10:25	S-SO-56395-CB-011410-040	SulTRAC	
SB-305	0-2	11:20	SO-56395-CB-011410-041	CRA	
SB-305	0-2	11:20	S-SO-56395-CB-011410-041	SulTRAC	MS/MSD
SB-305	8-10	11:30	SO-56395-CB-011410-042	CRA	
SB-306	0-1	12:10	SO-56395-CB-011410-043	CRA	
SB-306	7.5-9.5	12:15	SO-56395-CB-011410-044	CRA	
SB-306	7.5-9.5	12:20	SO-56395-CB-011410-045	CRA	DUPLICATE
SB-306	9.5-11	12:25	SO-56395-CB-011410-046	CRA	
SB-306	9.5-11	12:25	S-SO-56395-CB-011410-046	SulTRAC	
SB-307	0-1	14:00	SO-56395-CB-011410-047	CRA	
SB-307	6-8	14:05	SO-56395-CB-011410-048	CRA	
SB-307	6-8	14:10	SO-56395-CB-011410-049	CRA	DUPLICATE
SB-307	8-10	14:15	SO-56395-CB-011410-050	CRA	

Notes:

ID	Identification
CRA	Conestoga-Rovers & Associates, Inc.
MS/MSD	Matrix spike/matrix spike duplicate
SB	Soil boring

SulTRAC departed the site at 4:30 p.m. CRA was preparing to leave the site.

Friday, January 15, 2010

SulTRAC (Kristi Root) arrived on site at 8:00 a.m. Weather was overcast and 33 degrees Fahrenheit. CRA had three different groups working on site: one group was installing a well, a second group was purging drilling volume from installed wells, and the third group was collecting geotechnical samples. CRA began installing MW-18 with the well screen from 11 to 18 ft bgs, and 50 gallons of water was used in the installation process. CRA used the Geoprobe to collect 5-ft soil cores for the geotechnical samples. At least 36 inches of recovery was needed for a good sample. At SB-137, seven soil cores were advanced in an attempt to obtain 36 inches of recovery. CRA was able to obtain only 24 inches of recovery for SB-137. The empty tubing of the soil core was cut off, and wax was melted into both ends of the core to seal it. Duct tape was applied over the wax seals. Table 7 lists the geotechnical sampling data for January 15, 2010 (see Photographs No. 15 and 16 in Appendix A).

Table 7
Geotechnical Sampling Data

Location	Recovery, inches	Attempts made to reach 36 inches of recovery
SB-137	24	7
SB-136	41	1
SB-134	32	4
SB-135	35	1
SB-202	35	1
SB-201	36	1
TP-302	36	1

CRA began removing the water used during the well installation. Once surging was set up, CRA used a 5-gallon bucket to time the rate of pumping. The volume removed during surging was determined from the rate and the duration of the surge process. Table 8 lists the well volumes removed from the monitoring wells in the surging process, as well as volumes needed to be removed from the wells during installation (see Photograph No. 14 in Appendix A).

Table 8
Water Volumes Removed from Monitoring Wells

Monitoring well	Volume surged from well, gallons	Water added to facilitate drilling, gallons
MW-13	28	15
MW-18	68	50
MW-14	40	35
MW-19	38	35
MW-17	56	35

CRA began to clean up the site at 12:15 p.m. and set up for activities on the following Monday. SulTRAC and CRA departed the site at 1:30 p.m.

ISSUES AND DEVELOPMENTS

SulTRAC noted a few issues during the first week of the RI activities. The first issue was discovery that the water table was at a higher elevation (6 to 8 ft bgs) than CRA originally had thought (10 ft bgs) during the planning process and preparation of its field sampling plan. For this reason, CRA did not collect as many samples as the field sampling plan specified. CRA expected this discrepancy between previously believed and field-encountered depths of the water table to continue throughout the remainder of the Phase II RI.

A second issue was a change in sampling procedures for soil boring samples for VOC analysis. Originally, VOC samples were to be preserved for each 2-ft increment. The intent of this sampling method was to reduce the amount of volatile compounds released. However, this method would unnecessarily waste methanol preservative and impose significant costs for the methanol and sample supplies. The procedure used by CRA in the field was to first do a soil log and record a PID measurement at each 2-foot interval from the first soil boring collected at a location. Based on the PID measurements from this first boring, the sampling intervals would be determined. Then a second soil boring was advanced, and the VOC samples were immediately collected at the appropriate intervals after the acetate liner had been cut in the second boring. For the rest of the sample analytical parameters, the soils from the first and second borings were mixed together to attain the sample volume required for analysis.

The third issue noted by SulTRAC was that the intent of VAS sampling to extend to 40 ft bgs was thwarted at VA-2 by encounter with a clay till at 32 feet bgs. The Geoprobe was not able to push beyond 35 feet bgs. VAS sampling for VA-2 ended at 32 feet.

Also, a question arose in the field as to whether CRA needed to collect soil samples for total cyanide analysis. SulTRAC included sampling for total cyanide analysis in its collection of all split soil samples. After a call discussing this issue with EPA and SulTRAC, CRA proposed to EPA pre-designated locations for total cyanide sampling.

The final issue came on January 15, 2010, when the geotechnical samples were collected. For an adequate sample, CRA needed 36 inches of recovery. After multiple attempts at some locations, CRA was not able to obtain 36 inches. CRA submitted the highest recovery it could obtain for each location.

FUTURE ACTIVITIES

As requested by EPA, SulTRAC will continue performing oversight and split sampling activities until the Phase II RI is complete. SulTRAC will submit weekly summary reports to EPA for the duration of the Phase II RI field activities.

APPENDIX A

SULTRAC PHOTOGRAPHIC LOG

(9 Pages)

Photograph No. 1
Orientation: East
Description: CRA drill rig set up on VA-1.

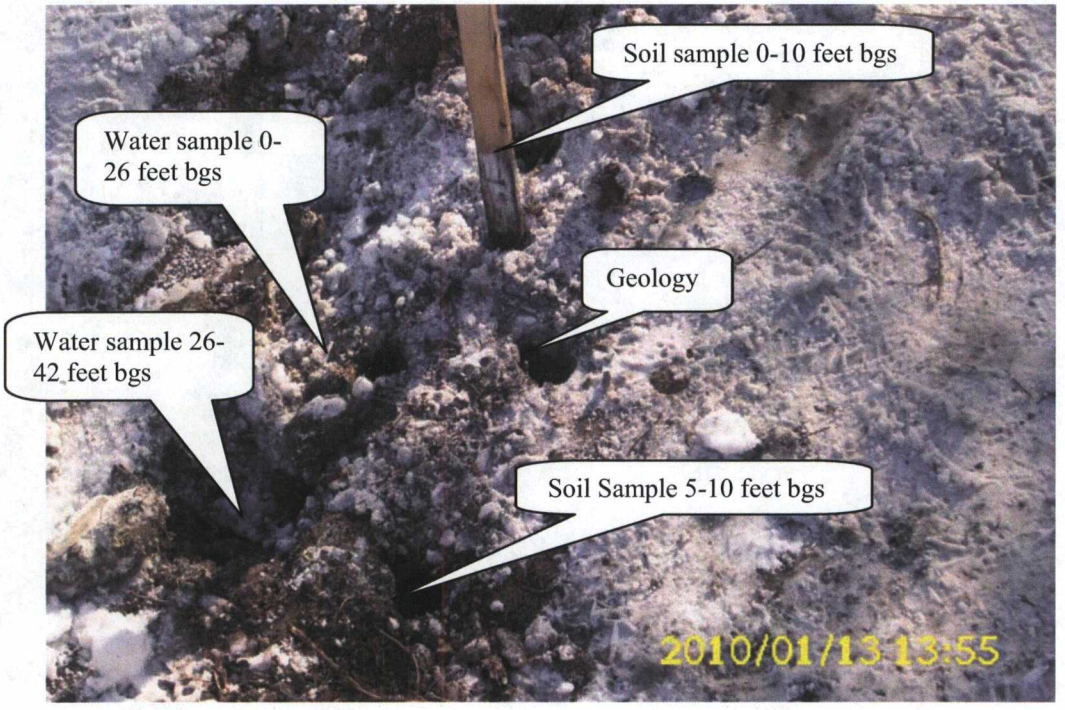
Location: Plainwell Mill Site
Date: January 11, 2010

Photograph No. 2
Orientation: None
Description: Clay with paper residual encountered from 7-10 feet below ground surface (bgs) at VA-1.

Location: Plainwell Mill Site
Date: January 11, 2010

Photograph No. 3 Location: Plainwell Mill Site
Orientation: None Date: January 11, 2010
Description: Clay with paper residual encountered from 7-10 feet bgs at VA-1.

Photograph No. 4 Location: Plainwell Mill Site
Orientation: Southwest Date: January 12, 2010
Description: VA-1 purge process conducted by CRA.



Photograph No. 5
Orientation: South
Description: VA-1 boring holes.

Location: Plainwell Mill Site
Date: January 13, 2010

Photograph No. 6
Orientation: West
Description: Decontamination of hand auger with Alconox.

Location: Plainwell Mill Site
Date: January 13, 2010

Photograph No. 7
Orientation: North
Description: CRA using hand auger at SS-106.

Location: Plainwell Mill Site
Date: January 13, 2010

Photograph No. 8
Orientation: North
Description: CRA collecting composite sample at SS-106.

Location: Plainwell Mill Site
Date: January 13, 2010

Photograph No. 9
Orientation: North
Description: Monitoring well (MW-16) installed.

Location: Plainwell Mill Site
Date: January 13, 2010

Photograph No. 10
Orientation: Southeast
Description: Monitoring well (MW-19) installation.

Location: Plainwell Mill Site
Date: January 14, 2010

Photograph No. 11 Location: Plainwell Mill Site
Orientation: Southeast Date: January 14, 2010
Description: CRA logging soil from SB-305. CRA drill crew in background performing decontamination of boring shaft.

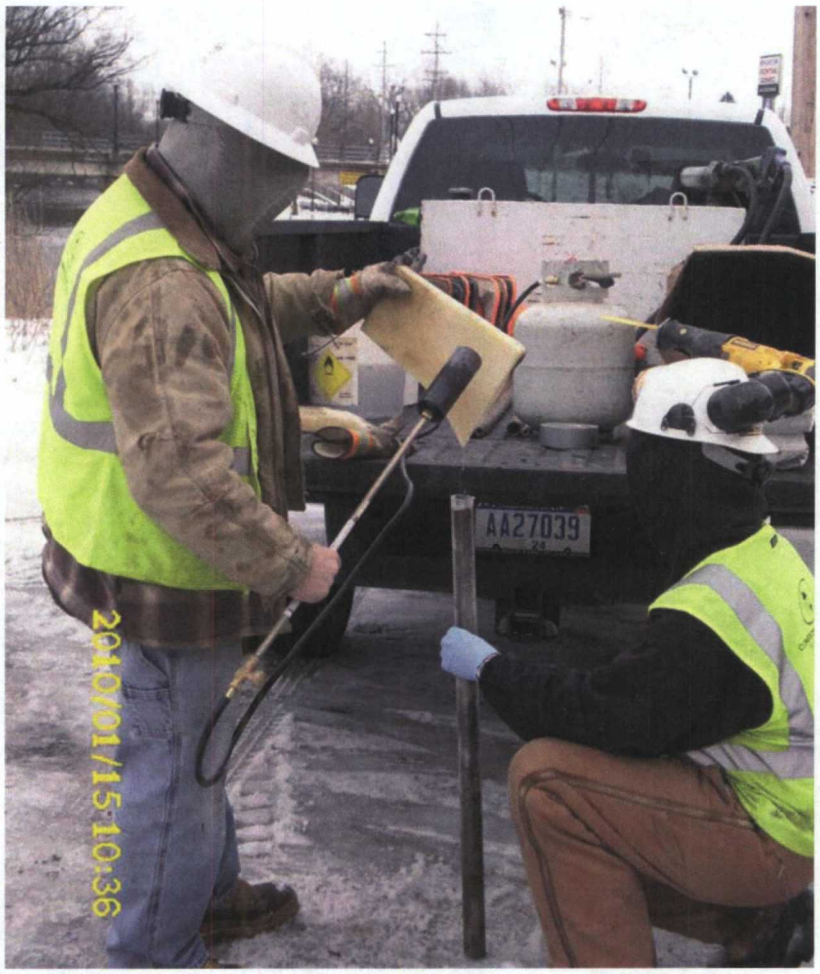
Photograph No. 12 Location: Plainwell Mill Site
Orientation: North Date: January 13, 2010
Description: VA-2 geology left to right/top to bottom 0-5 and 5-10 feet bgs, respectively. Water table is at 5-6 feet bgs.

Photograph No. 13
Orientation: Northwest
Description: Vertical aquifer sampling at VA-2.

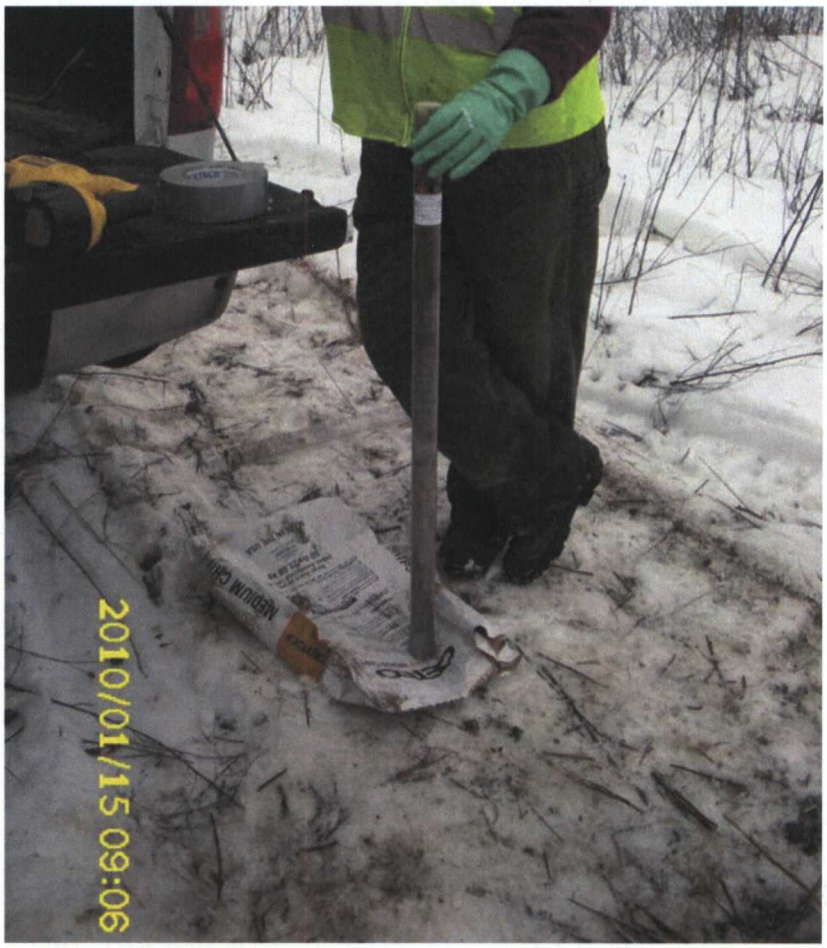
Location: Plainwell Mill Site
Date: January 14, 2010

Photograph No. 14
Orientation: South
Description: CRA surging out the drill water at MW-14.

Location: Plainwell Mill Site
Date: January 15, 2010



Photograph No. 15 Location: Plainwell Mill Site
Orientation: East Date: January 15, 2010
Description: CRA melting wax to seal Geotech sample for SB-201.



Photograph No. 16
Orientation: none
Description: Geotech sample SB-136.

Location: Plainwell Mill Site
Date: January 15, 2010

APPENDIX B

SULTRAC OVERSIGHT FIELD NOTES

(16 Sheets)

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Plainwell Mill
RI Oversight
1-11-2010 →
Book 1

Plainwell Mill Site 1/11/10 1030692460

0800 Sulltrac arrives onsite
- Kristi Root (Sulltrac)
- Rob Kondrreck (SulTRAC)
- Tracey Keach (Sullivan)
CRA already onsite
- Emily Stahl (CRA)
- Jodie Dembowske (CRA)
4 additional CRA employees
0830 - CRA conducted health 1 Safety meeting
main pts. - hospital location 3 blocks away. Cold biggest concern, trips slips and falls in snow and ice. Unsure of chemicals contamination of concern
0845 TriMatrex delivered 10 coolers with metals sample bottles
0845 - 20F - light snow overcast
0915 - CRA drill crews showed up - 2 drill crews onsite
0930 - snow becoming ~~heavy~~ heavier
0945 Took tour of site with CRA
E. Stahl - CRA - pointed out areas to avoid due to dangerous conditions

1/11/10 - [signature]

Plainwell Mill Site 1/11/10

0930 Backhoe - T. Keach offsite
1130 CRA drill crews setting up then breaking for lunch
1145 Sulltrac offsite for lunch
1230 Sulltrac onsite (Keach, Kondreck, Root)
1305 1st sleeve 0-5' from VA-1
1310 Photo log 434 drill rig @ VA-1
1311 - 5-10 sleeve from VA-1
encountered ~~pape~~ clay w/paper residual (@ 6-8 ft) 7-10'
1315 Photo log 435 sleeves 1 + 2 from VA-1 - grey material is ~~paper~~ clay w/paper residual
1315 - Photo log 436 additional photo of clay w/paper residual 7-10'
1320 - 3rd sleeve from VA1 10'-15'
- ground table around 10'
1335 - 4th sleeve from VA-1 15'-20'
1355 - Drill crew starting to drew VA-1 for sampling - 1st water sample @ 10'-14' interval
- Only have 4' screens so will be in 4' intervals
1411 - not drilling for water sample yet. Only geology 20-40'

[signature] 1/11/09

Plainwell Mill Site 1/11/10

1411 - 20-25' geology sleeve from VA-1
1426 - 25'-30 geology sleeve from VA-1
sands and coarse gravels - dark colors
1444 - 30-35' geology sleeve from VA-1
fine to coarse sands
1455 - 35-40' geology sleeve from VA1
Coarse sand
1510 - Started drilling for water
Sample @ VA-1
16:00 Started sampling VA-1 10'-14'
VAS-56394-TDR-011110-109
15:25 - Backnote started purging low flow
16:00 - Backnote - VA-1 stabilized
16:45 Completed sampling VA-1
1700 SulTRAC (Kovach, Kendrick, Root)
Off site
1700 - Soil Boring 109 - (SB-109)
completed by other drill crew
- Other crew completed Monitoring
well is (MW-45)
- CRA took 4 soil samps
- CRA took 1 VA sample 10-14'
- SulTRAC completed 1 soil sample
- SulTRAC completed 1 VA sample 10-14'

1/11/10

Plainwell Mill Site 1/12/10

0800 - SulTRAC arrives on site (Kendrick, Root), CRA already onsite
0800 Tailgate meeting - beware of cold, trips and falls
CRA STAFF Present:
Corrie Bondy (sampler)
Evan Varner (~~Driller~~) field tech
Emily Stahl (Project manager)
Chris Brian (Driller)
Jason Hurshman (Driller)
David Rivers (sampler)
Tim Reed (Driller)
0800 - Photo Log - Backnote 437 - CRA drill crew doing decon on drill probes @ VA-1
0815 - Partly sunny - ~~20°F~~ 10°F
0900 - Drill started @ VA-1 - drilling to 14-18' for sample
0915 - Inserted tubing for water sample at VA-1
925 - Started purging from screen 14-18' @ VA-1
0945 - Started sampling screen 14-18' from VA1

1/12/10

Plainwell Mill 1/12/10

0945 - Photo log - 438 purging process for VA-1 (David Rivers - CRA)
0945 - Sample ID - VAS-56394-DR-011210-1002
1010 - Completed sampling 14-18' screen - started drilling screen down to 18'-22'
1025 - Started purging screen 18-22'
1055 - finished purging screen 18-22' - VA-1 - Started sampling VA-1 - taking field duplicate so numbers are VAS-56394-DR-011210-1003 and VAS-56394-DR-011210-1004
1135 - Completed sampling screen 18-22' of VA-1 - starting to drill down to 22'-26'
1215 - Backenve SulTRAC (Keach) arrived onsite. Overseeing surface soil samples in wooded area of area 1
1200 - SulTRAC staff offsite for lunch
12:40 SulTRAC (Kondreck, Root) onsite
12:40 CRA still onsite - drill crew working on MW-14 + other still working w/VA-1

1/12/10

Plainwell Mill 1/12/10

1315 - CRA - started surface soil sampling in wooded area: VA-1 started purging screen 22-26' (water level @ 8.5')
1345 - finished purging and started sampling screen 22-26' of VA-1
1400 - finished sampling VAS-56394-DR-011210-1005 from VA-1 started drilling down to 26-30'
1405 Started surface soil sampling @ SS-100
1415 Sample Time SS-100 Sample ID is SS-56394-EV-011210-010
1445 - having trouble setting screen interval @ 26-30' for VA-1 - screen will not pop out of geoprobe tubing (boring tube)
1450 Screen set for 26-30' @ VA-1
1500 - Purging for 26-30' @ VA-1 started water level remaining @ 8.5'
1530 - finished purging - Started sampling VA-1 26-30' sample ID is VAS-56394-DR-011210-1006 - could not get turbidity readings to much turbidity due to fine sand layer

1/12/10

Plainwell Mill 1/12/10

1545 - finished sampling VA-1 screen interval 26-30'

1545 - started drilling 30'-34' screen @ VA-1

1620 - finished setting screen interval 30'-34' @ VA-1. Had trouble setting screen due to fine sands catching screen as tried to pull it up

1640 Fedex arriving onsite. ~~Recei~~ for One cooler to CLP lab going Fedex

1715 SulTRAC leaving site

1810 SulTRAC delivered samples to Trimatrix

Summary:

CRA advanced 3 borings (MW-14 installed, MW-16 advanced, MW-17 advanced)

CRA samples:

MW-14 - 006	MW-16 - 015	MW-17 - 018
008	016	019
009	017	

VA-1 - 1002	SS - 105	0011
1003	SS - 103	- 012
1004	SS - 102	- 013
1005	SS - 100	- 007
1006	~~SS~~ - 107	- 010

Plainwell Mill 1/12/10

Summary Conclusion

50 samples = 8 CRA

SSO samples = 1 SulTRAC

SS samples = 4 CRA

SS samples = 1 SulTRAC

VAS samples = 5 CRA

VAS samples = 0 SulTRAC

1/12/10

Plainwell Mill 1/13/10

0800 SulTRAC arrived onsite
CRA already present:
C. Bondy, E. Stahl, C. Brian,
J. Hushman, D. Rivers, T. Reed,
M. Petty

0810 - Started purging interval
30-34' of VA-1

0810 - Partly Sunny + 20°F

0830 - E. Vames of CRA onsite

0840 - Started sampling VA-1 30-34'
VAS-56394-DR-011310-1007
Groundwater at 8.5'

0900 - finished sampling VA-1 30'-34'
Started drilling to 34'-38'

0930 Started puging VA-1 34'-38'

1010 Start samping VA-1 34'-38'

1. VAS-56394-DR-011310-1008
SulTRAC split sampled @ VA-1 34-38'
S-VAS-56394-DR-011310-1008
field dup SD-VAS-56394-DR-011310-1008

1100 - finished sampling interval 34'-38'
Started drilling to 38'-42'

1115 - Started purging VA-1 38'-42'

1145 - Finished purging - Start sampling
VA-1 38'-42' - VAS-56394-DR-011310-1009

1/12/10

Plainwell Mill 1/13/10

1205 - Finished sampling VA-1 38-42'

1210 - SulTRAC offsite

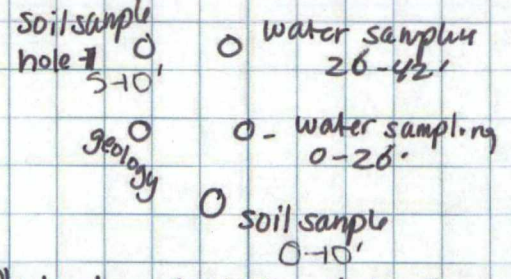
1310 - SulTRAC back onsite

1315 - CRA soil sample 0-2' soil ID
SD-56394-~~DR~~-DR-011310-1010

1325 - CRA soil sample 8-10' VA-1/MW-13
SO-56394-DR-011310-1011
Split sample S-SO-56394-DR-011310-1011

1350 - Finished with VA-1/~~MW-13 soil~~/ soil sampling - moving to VA-2 KR

Diagram of boring holes



- Photo log # 448 photo facing S photo of boring holes at VA-1 process

1430 - VA-2 started drilling VA-2 for geology log

1440 - VA-2 Boring 0-5'

1445 - VA-2 boring 5-10' logged water @ ~~5-6~~ KR 5-6

Plainwell Mill 1/13/10

1450 - Photo log 453 - facing North
- boring log 0-5' and 5-10'
- water @ 5-6' in dark fine sand

1500 - VA-2 10-15' logged (geology) —
only 2' of recovery

1510 - VA-2 15-20' logged larger gravel

1520 - VA-2 20-25' logged ≠ 1' recovery

1530 - VA-2 25-30' logged

1550 VA2 30-35' logged - 32' hit silt/h clay - no water
- will be doing 6'-32' VA-2 water sample

1600 - VA-2 6-10' foot sleeve for water sampling driller & started purging

1635 VA-2 screen interval 6-10' start sampling - VAS S6394-DR-011310-1012

1650 - completed sample screen interval 6-10' of VA-2 water @ 6.3'

1700 - SulTRAC offsite

Summary:

CRA	SulTRAC
SS (3 samples + 1 Dup)	SS (1 sample)
SO (VA-2 sample + 1 Dup)	SO (3 samples)
VA (4 samples)	VA (1 sample + 1 Dup)

1/13/10

Plainwell Mill 1/14/10

0800 - SulTRAC onsite (Rob, Kondredis)

0800 - Started purging screen 10-14' @ VA-2

0800 - weather - overcast 36°F

0845 - Started sampling screen 10-14' @ VA-2
VAS-S6394-DR-011410-1013

SulTRAC split sample @ 10-14' VA-2
S-VAS-S6394-DR-011410-1013

0900 - Decision finalized by CRA not to go to 32' for water sampling @ VA-2. In geology log, hit clay layer (clay till) @ 32' and called refusal @ 35' because equipment onsite could not go through

0910 Photo log # 454 - Sampling @ VA-2 facing northwest

0950 - completed sampling from VA-2 screen interval 10-14'

1005 - Started purging 14-18' screen interval

1040 Started sampling VA-2 14-18'
VAS-S6394-DR-011410-1014

1050 VAS-S6394-DR-011410-1015 Dup

1/14/10

Plainwell Mill 1/14/10

1135 Finished sampling VA-2 14-18'
Started drilling 18-22'

1215 Started purging VA-2 18-22'

1250 Started sample time VA-2 18-22'
VAS-S6394-DR-011410-1016

1315 finished sampling VA-2 18-22'
Started drilling 22-26' interval

1335 Started purging VA-2 22-26' interval

1400 Start sampling VA-2 screen interval 22-26'
VAS-S6394-DR-011410-1017

1425 - finished sampling VA-2 22-26' interval
- done sampling at VA-2 for the day
- Mobilizing over VA-1 to set well on Friday 1/15/10
Intervals 26-30 and 30-32' sample on Monday 1/18/10
SulTRAC will split sample 26-30'

1445 SulTRAC (ROOT) offsite to package samples/coolers

1600 - SulTRAC (Root, Koach) onsite

1630 - CRA finishing up for night

0800 SulTRAC offsite

~~1630~~ BACKNOTE STAFF: SulTRAC (Root, Kindred)
CRA (C. Bonds, D Rivers, E Vames, C. Brian, J. Hurshman, T. Reed, M. Petty)

1/14/10

Plainwell Mill 1/14/10

End of Day Summary:

CRA:
VAS (4 samples)
SO (16 samples)

SulTRAC
S-VAS (1 sample)
S-SO (4 samples)

1/14/10

Plainwell Mill 1/15/10

0800 SWTRAC (Root) onsite CRA already onsite

STAFF (CRA): C. Bondy, D. Rivers, E. Varnes, C. Brian, J. Hurshman, T. Reed, M. Petty

0800 weather - overcast & 33°F

0800- CRA - setting MW-18 with screen deep from 11-18', CRA crew doing geotech samples, & E. Varnes is purging ~~we~~ drill water from installed wells

0825 Geotech SB#137 5' corings - tried 5 holes but only got 2' of recovery need 3' of recovery to do sample what they have recovered has been backfill and debris, 24" of ~~recove~~ recovery was the best they could get after seven holes (attempts) sealed both ends of boring core with wax

0835 Photo log #463 facing west - photo of SB-137 - right side of photo 5 holes that had already been filled w/chips after geotechs attempts

0835 - SB-137 24" recovery geotech core sample

1/15/10

Plainwell Mill 1/15/10

0840 - MW-13 pumped 28 gals of drill volume. Pumping MW-14

0845 Photo log 464 - facing South - photo of surging @ MW-14

0905 geotech SB-136 - 41" of recovery

0906 Photo log 465 - ~~SB-135~~ SB-136 core geotech sample

0905 - wax both ends and then cover each end with duct tape (process for sealing cores)

0910 - Backnote - sampling / purging procedure - use peristaltic pump to purge VA wells then took samples VOCs first w/no engines on. If split w/ SWTRAC - alternated sampling.

0915 - geotech sample SB-134 first attempt

0915 Photo log 466 facing North geotech sampling @ SB-134 4 holes attempted - 2 resulted 31" 2 resulted in 32". Using one of 32" recovery

SB-134 - 32" recovery geotech core

0947 - Photo log 467 facing SW - SB-135

1/15/10

Plainwell Mill 1/15/10

0950 - SB-135 - 35" recovery for geotech sample all geotech samples 0-5'

1000 - MW-18 - 50 gals used for drill volume

1005 - MW-14 - 40 gals surged - completed
- MW-19 - 38 gals surged - completed
1005 - MW-17 - started surging

1000 - Backhoe - MW-18 well installation complete

1020 - SB-202 - 35" recovery geotech sample (0-5')

1030 - SB-201 - 36" recovery geotech sample (0-5')

1033 - Photo log - 468 - facing North - SB-201 being pulled up

1036 - Photo log 469 - facing east - wax capping SB-201

1032 - MW-17 - 56 gals of drill volume removed

1115 - TP302 - 36" recovery geotech sample (0-5)

1118 - 68 gals - drill volume surged fm MW-18

1215 - cleaning up site & setting up for monday

1330 - SulTRAC offsite - CRA closed up all buildings. CRA offsite

1-15-10

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PLAINWELL MILL

RI OVERSIGHT

1-11-2010 →

BOOK 2

Plainwell Mill 1-11-10

1300 CRA advances SB-109; collecting 0-20 logging soil; collecting 2' intervals of sample (0-20) for PID in plastic zip-lock baggies

1315 Photo (overview) 7½-10 of paper residual in gray clay layer from 7½-10'

1320 75% 0-5 F-M Bn Sand

80% 5-10 L+- DK Gray Clay (7½-10') paper resid

75% 10-15 DK BK F Sand (1') DK Bn Clay (1') BK poorly sorted bed gravel C-F

1325 15-20 BK → Bn M-F Sand Poorly Sorted

1330 PID using Mini RAE Lite; Geoprobe using Geoprobe 6610 DT Macrocore Direct Push in 5' foot intervals bentonite chip hole following completion

1355 Sample 0-2 & 8-10 (PID & Fill material → smell)

1400 Photo (overview) sampling 0-2 in SB-109 Mixing bowl

1415 SO-56394-CB-011110-001 ① (0-2)

1425 SO-56394-CB-011110-002 ② (8-10) VOC, PCB, SVOC, Metals, CN⁻, SPLP Metals & Gen Chemistry

1450 Moved to MW-15

1515 Finished borehole to 20' 1-11-10

Plainwell Mill 1-11-01

0-5 Fill (Brick, F Sand layer) btwn Clay

5-10 Bn Clay mixed w/ gravel ~7' wet

10-20 C-F Gravel poorly sorted sem-rounded

1535 SO-56394-CB-011110-003 ③ (0-2)

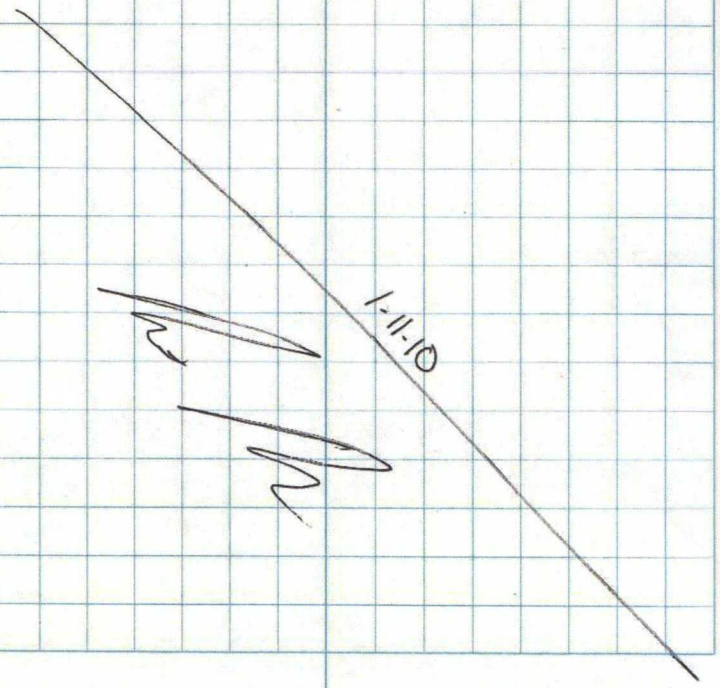
SSO-56394-CB-011110-005 ① (0-2)

Setting well at (5-12' bgs)

1550 ~~SSO~~ SO-56394-CB-011110-004 ④ (4-6)

Used 30gal of water during well setting.

SO-56394-CB-011110-005 (FB)



Plainwell Mill 1-12-10

0930 Advance MW-14, moved east from original location by 4-5 feet due to utilities

0940 Photo (E) Advancing MW-14 using geoprobe

50% 0-5 Lt Bn S&G (0-2½) Bn F Sand well sorted

5-10 Lt Bn F. Sand trl C-Gravel (5-7½) S&G (7½-10)

10-20 C-Gravel rounded poorly to well sorted near 20'

0950 MW-14 Soil core of MW-14

1010 SO-56394-CB-011210-006 (5) (0-2) MS/MSD

~~1020 SO-56394-CB-011210-007 (4-6)~~ (6)

1030 SO-56394-CB-011210-008 (6) (8-10) Dup

1035 SO-56394-CB-011210-009

1045 MW-14 Screen ~~8-15'~~ (7-14') 35 gal water

1110 Photo (SE) MW-14 Installation SS-103

1320 Collecting surface sample SS-56394-EV-011210-012

1345 Collected SS-102 SS-56394-EV-011210-013

1450 Start MW-16 0-5

0-5 (0-4) unconsolidated Lt Bn S&G (4-5) Gy mottled Bn clay some organics (tree frag)

5-10 Bk Clay Vy organic odor

10-15 Rounded S&G Lt Bn Poorly Sorted

15-20 A.A - 17 (17-20) A.A Gray

1530 Finish MW-16 prepare to sample

1-12-10

Plainwell Mill 1-12-10

1540 SO-56394-CB-011210-017 (7) (0-2)

1550 SO-56394-CB-011210-016 (8) (3-5)

1600 SO-56394-CB-011210-015 (9) (8-10)

Subtrac Dup MW-16 (8-10) (2)
SSO-56394-CB-011210-015

1630 Begin advancing MW-17

0-5 Asphalt Dk Bn F. Sand → Lt Bn F. Sand

5-10 A.A Concrete @ 6'

10-20 S&G Poorly sorted rounded, larger gravel towards 20'

~~1650 SO-56394-CB-011210-018 (10) (0-2)~~

~~1700 " 019 (8-10)~~

BacKnot CRA forgot to get a Duplicate from 018 will resample tomorrow, toss 018 & 019 8½-15½

~~BacKnot 1650 Collected~~

BacKnot 1700 Collected (8-10)
SO-56394-CB-011210-019 (10) (8-10)

1-12-10

Plainwell Mill 1-13-10

0830 Begin installing MW-16 (8-15') set ± 30 gal

1000 Finished MW-16 using HSA on geoprobe used to set MW, all wells so far have been 2" PVC stick-up

1100 Sampling SO-56394-CB-011310-018 (10) (0-2)

1110 Sampling " "-020 (0-2) Dup

1100 & 018 & 020 were collected from MW-17.

1115 Set MW-17 from 8½-15½

Backrock CRA duplicates collected by 1st VOCs, then mixing remaining soil in bowl lined w/ tinfoil. Each scoop of soil was then seperated into each jar as evenly as possible 22

1325 SS-56394-EV-011310-022 (0-2) at location SS-104 collected

1335 Photo (W) Decon Hand Auger w/ Alconox

1338 Photo (W) Rinse Hand Auger

~~SS-106~~

1338 Photo (N) x2 Hand Auger SS-106

1343 Photo (E) SB-145

1347 Phot (E) SS-104

Sample SS-106

1345 SS-5694-EV-011310-023 (0-2)

1350 " "-024 Dup (0-2) 1-13-10

Plainwell Mill 1-13-10

1356 Photo (W) MW-14

1359 Photo (W) MW-15

1403 Photo (N) MW-16

1407 Photo (E) MW-17 (9-16) screened ~~50~~ 50 ga

1411 Begin MW-18 advancement

0-5 Organic Dk Bn F Sand (2½) Lt Bn F Sand 5

5-10 Dk Bn F Sand to S&G

10-15 Lt Bn F Sand (13) ▼ S&G (15') unconsolidated semi-rounded

15-20 S&G semi rounded

1510 Sample MW-18

1510 SO-56394-CB-011310-025 (12) (0-2)

1520 SO-56394-CB-011310-026 (13) (8-10)

Split of above (8-10) (3)

SSO-56394-CB-011310-026 (8-10)

1530 SO-56394-CB-011310-027 (14) (10-12)

1550 Start advancing MW-19

0-5 Coal fragments to 2' Dk Bn F Sand to

5-10 Lt Bn F Sand (?) S&G (10') 10½ ▼

10-20 S&G unconsolidated semi rounded

1630 SO-56394-CB-011310-028 (15) (0-2)

SSO " " (0-2) (4)

1640 SO-56394-CB-011310-029 (16) (8-10)

1-13-10

PLAINWELL MILL 1-14-10

0815 Advancing SB-303
0-5 Coal Slag (4') crushed gravel DK Bn → Lt Bn F Sand to C Gravel
5-10 S & G unconsolodated
10-20 S & G " "
0900 SO-56394-CB-011410-032 (17) (0-2) MS/MSD
0905 " " - 033 (18) (3½-5½)
0910 " " - 034 (19) (5½-7½)
0915 " " - 035 (20) (8-10) ~~Dup~~
0920 " " - 036 (8-10) Dup

Siltrac Sample of (3½-5½) (5)
0905 SSO-56394-CB-011410-033

Siltrac Duplicate Sample (3½-5½)
0907 SDSO-56394-CB-011410-033

0945 START SB-304
0-5 Coal Slag (3') DK Bn → Lt Bn F Sand to C Gravel
5-10 A.A (5-7) S & G → 20
1008 Photo (E) Decon rods during advancement of SB-304
1010 SO-56394-CB-011410 - 037 (0-2) (21)
1015 " " - 038 (4-6) (22)
1020 " " - 039 (6-8) (23)
1025 " " - 040 (8-10) (24)

Siltrac ~~Duplicate~~ SB-304 (8-10) (6)
1025 SSO-56394-CB-011410-040

1-14-10

PLAINWELL MILL 1-14-10

1029 Photo (S) SB-303
1050 START SB-305
1056 Photo (SE) Logging soil from SB-305
0-5 Crushed Coal to RD Brick → DK Bn F Sand
5-10 Lt Bn F Sand
10-20 S & G
1120 SO-56394-CB 011410-041 (0-2) (25)

Siltrac Sample of (0-2) & MS/MSD (7)
SSO-56394-CB-011410-041

1130 SO-56394-CB-011410-042 (8-10) (26)
1135 START SB-306
0-5 Crushed Coal (3') DK Bn → Lt Bn F Sand
5-10 DK Bn M-Sand w/ F-Gravel
10-20 S & G varies quantity
1040 CRA will collect a surface sample from 0-1 instead of 0-2 from now on after recieving a phone call from their management
1210 SO-56394-CB-011410 - 043 (0-1) (27)
1215 " " - 044 (7½-9½) (28)
1220 " " - 045 (7½-9½) Dup
1225 " " - 046 (9½-11) (29)

1225 Siltrac Sample of (9½-11) (8)
SSO-56394-CB-011410-046

1-14-10

1230 Photo (W) SB-306 & SB-305

Plainwell Mill 1-14-10

1232 Photo (SE) From left to right MW-19, SB-304, SB-303 location

1315 START SB-307

0-5 Crushed Coal → DK Brn F Sand Tr M-Gravel

5-10 A.A → Lt Brn F SAND → S+G

10-20 S+G @ 17' Black Sheen + oily on S+G

1352 Photo (N) of SB-307 location

1400 SO 56394-CB-011410-047 (0-1) (20)

1405 " " -048 (6-8) (51)

1410 " " -049 (6-8) Dup

1415 " " -050 (8-10) (52)

1430 Begin installing MW-19, setting well from (8-15) 35-gallons

1456 Installing MW-19 Photo (S)

1535 ~~Installing~~ Begin installing MW-13 (9-16') 15-gallons

1614 Photo (SE) Installed MW-19

1-14-10

APPENDIX C

FIELD SAMPLE LOG

(Three Sheets)

SUBSURFACE SOIL SAMPLES										
SAMPLE LOCATION	SAMPLER	SAMPLE ID	DATE	INTERVAL, FT	SAMPLE TIME	Field Duplicates or MS/MSD	CRA sample count	SulTRAC sample count	SulTRAC Duplicate Count	SulTRAC MS/MSD count
FIELD BLANK	CRA	SO-56394-CB-011110-005	1/11/2010			FB				
MW-14	CRA	S0-56394-CB-011210-006	1/12/2010	0-2	1010	MS/MSD	1			
MW-14	CRA	S0-56394-CB-011210-008	1/12/2010	8-10	1030		1			
MW-14	CRA	S0-56394-CB-011210-009	1/12/2010	8-10	1035	DUPLICATE				
MW-15	CRA	SO-56394-CB-011110-003	1/11/2010	0-2	1535		1			
MW-15	CRA	SO-56394-CB-011110-004	1/11/2010	4-6	1550		1			
MW-15	SulTRAC	S-SO-56394-CB-011110-003	1/11/2010	0-2	1535			1		
MW-16	CRA	S0-56394-CB-011210-015	1/12/2010	8-10	1600		1			
MW-16	CRA	S0-56394-CB-011210-016	1/12/2010	3-5	1550		1			
MW-16	CRA	S0-56394-CB-011210-017	1/12/2010	0-2	1540		1			
MW-16	SulTRAC	S-S0-56394-CB-011210-015	1/12/2010	8-10	1600			1		
MW-17	CRA	S0-56394-CB-011310-018	1/13/2010	0-2	1100		1			
MW-17	CRA	S0-56394-CB-011210-019	1/12/2010	8-10	1700		1			
MW-17	CRA	S0-56394-CB-011310-020	1/13/2010	0-2	1110	DUPLICATE				
MW-18	CRA	S0-56394-CB-011310-025	1/13/2010	0-2	1510		1			
MW-18	CRA	S0-56394-CB-011310-026	1/13/2010	8-10	1520		1			
MW-18	CRA	S0-56394-CB-011310-027	1/13/2010	10-12	1530		1			
MW-18	SulTRAC	S-S0-56394-CB-011310-026	1/13/2010	8-10	1520			1		
MW-19	CRA	S0-56394-CB-011310-028	1/13/2010	0-2	1630		1			
MW-19	CRA	S0-56394-CB-011310-029	1/13/2010	8-10	1640		1			
MW-19	SulTRAC	S-S0-56394-CB-011310-028	1/13/2010	0-2	1630			1		
SB-109	CRA	SO-56394-CB-011110-001	1/11/2010	0-2	1415		1			
SB-109	CRA	SO-56394-CB-011110-002	1/11/2010	8-10	1425		1			
SB-303	CRA	SO-56395-CB-011410-032	1/14/2010	0-2	900	MS/MSD	1			
SB-303	CRA	SO-56395-CB-011410-033	1/14/2010	3.5-5.5	905		1			
SB-303	SulTRAC	S-SO-56395-CB-011410-033	1/14/2010	3.5-5.5	905			1		
SB-303	SulTRAC	SD-SO-56395-CB-011410-033	1/14/2010	3.5-5.5	907	DUPLICATE			1	
SB-303	CRA	SO-56395-CB-011410-034	1/14/2010	5.5-7.5	910		1			
SB-303	CRA	SO-56395-CB-011410-035	1/14/2010	8-10	915		1			
SB-303	CRA	SO-56395-CB-011410-036	1/14/2010	8-10	920	DUPLICATE				
SB-304	CRA	SO-56395-CB-011410-037	1/14/2010	0-2	1010		1			
SB-304	CRA	SO-56395-CB-011410-038	1/14/2010	4-6	1015		1			
SB-304	CRA	SO-56395-CB-011410-039	1/14/2010	6-8	1020		1			

SUBSURFACE SOIL SAMPLES continued										
SAMPLE LOCATION	SAMPLER	SAMPLE ID	DATE	INTERVAL, FT	SAMPLE TIME	Field Duplicates or MS/MSD	CRA sample count	SulTRAC sample count	SulTRAC Duplicate Count	SulTRAC MS/MSD count
SB-304	CRA	SO-56395-CB-011410-040	1/14/2010	8-10	1025		1			
SB-304	SulTRAC	S-SO-56395-CB-011410-040	1/14/2010	8-10	1025			1		
SB-305	CRA	SO-56395-CB-011410-041	1/14/2010	0-2	1120		1			
SB-305	SulTRAC	S-SO-56395-CB-011410-041	1/14/2010	0-2	1120	MS/MSD		1		1
SB-305	CRA	SO-56395-CB-011410-042	1/14/2010	8-10	1130		1			
SB-306	CRA	SO-56395-CB-011410-043	1/14/2010	0-1	1210		1			
SB-306	CRA	SO-56395-CB-011410-044	1/14/2010	7.5-9.5	1215		1			
SB-306	CRA	SO-56395-CB-011410-045	1/14/2010	7.5-9.5	1220	DUPLICATE				
SB-306	CRA	SO-56395-CB-011410-046	1/14/2010	9.5-11	1225		1			
SB-306	SulTRAC	S-SO-56395-CB-011410-046	1/14/2010	9.5-11	1225			1		
SB-307	CRA	SO-56395-CB-011410-047	1/14/2010	0-1	1400		1			
SB-307	CRA	SO-56395-CB-011410-048	1/14/2010	6-8	1405		1			
SB-307	CRA	SO-56395-CB-011410-049	1/14/2010	6-8	1410	DUPLICATE				
SB-307	CRA	SO-56395-CB-011410-050	1/14/2010	8-10	1415		1			
VA-1	CRA	S0-56394-CB-011310-1010	1/13/2010	0-2	1315		1			
VA-1	CRA	S0-56394-CB-011310-1011	1/13/2010	8-10	1325		1			
VA-1	SulTRAC	S-S0-56394-CB-011310-1011	1/13/2010	8-10	1325			1		
Subtotal Subsurface Soil Sampling							34	9	1	1
VAS SAMPLES										
VA-1	CRA	VAS-56394-DR-011110-1001	1/11/2010	10-14	1600		1			
VA-1	SulTRAC	S-VAS-56394-DR-011110-1001	1/11/2010	10-14	1600			1		
VA-1	CRA	VAS-56394-DR-011210-1002	1/12/2010	14-18	945		1			
VA-1	CRA	VAS-56394-DR-011210-1003	1/12/2010	18-22	1055		1			
VA-1	CRA	VAS-56394-DR-011210-1004	1/12/2010	18-22	1055	DUPLICATE				
VA-1	CRA	VAS-56394-DR-011210-1005	1/12/2010	22-26	1345		1			
VA-1	CRA	VAS-56394-DR-011210-1006	1/12/2010	26-30	1530		1			
VA-1	CRA	VAS-56394-DR-011310-1007	1/13/2010	30-34	840		1			
VA-1	CRA	VAS-56394-DR-011310-1008	1/13/2010	34-38	1010		1			
VA-1	SulTRAC	S-VAS-56394-DR-011310-1008	1/13/2010	34-38	1010			1		
VA-1	SulTRAC	SD-VAS-56394-DR-011310-1008	1/13/2010	34-38	1010	DUPLICATE			1	
VA-1	CRA	VAS-56394-DR-011310-1009	1/13/2010	38-42	1145		1			
VA-2	CRA	VAS-56394-DR-011310-1012	1/13/2010	6-10	1635		1			
VA-2	CRA	VAS-56394-DR-011410-1013	1/14/2010	10-14	845		1			
VA-2	SulTRAC	S-VAS-56394-DR-011410-1014	1/14/2010	10-14	845			1		
VA-2	CRA	VAS-56394-DR-011410-1014	1/14/2010	14-18	1040		1			

VAS SAMPLES continued										
SAMPLE LOCATION	SAMPLER	SAMPLE ID	DATE	INTERVAL, FT	SAMPLE TIME	Field Duplicates or MS/MSD	CRA sample count	SulTRAC sample count	SulTRAC Duplicate Count	SulTRAC MS/MSD count
VA-2	CRA	VAS-56394-DR-011410-1015	1/14/2010	14-18	1040	DUPLICATE				
VA-2	CRA	VAS-56394-DR-011410-1016	1/14/2010	18-22	1250		1			
VA-2	CRA	VAS-56394-DR-011410-1017	1/14/2010	22-26	1400		1			
Subtotal VAS Sampling							13	3	1	0
SURFACE SOIL SAMPLES										
SS-105	CRA	SS-56394-EV-011210-011	1/12/2010	0-1			1			
SS-103	CRA	SS-56394-EV-011210-012	1/12/2010	0-1	1320		1			
SS-103	SulTRAC	S-SS-56394-EV-011210-012	1/12/2010	0-1	1320			1		
SS-102	CRA	SS-56394-EV-011210-013	1/12/2010	0-1	1345		1			
SS-100	CRA	SS-56394-EV-011210-010	1/12/2010	0-1	1415		1			
SS-107	CRA	SS-56394-EV-011210-015	1/12/2010	0-1	1120		1			
SS-101	CRA	SS-56394-EV-011310-021	1/13/2010	0-1	1135		1			
SS-101	SulTRAC	S-SS-56394-EV-011310-021	1/13/2010	0-1	1135			1		
SS-104	CRA	SS-56394-EV-011310-022	1/13/2010	0-1	1325		1			
SS-106	CRA	SS-56394-EV-011310-023	1/13/2010	0-1	1345		1			
SS-106	CRA	SS-56394-EV-011310-024	1/13/2010	0-1	1350	DUPLICATE				
Subtotal surface sampling							8	2	0	0
Total Samples During Week 1 (January 11 -15)							55	14	2	1